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– WHO BUILDS CITIES IN CHINA? How Urban Investment and Development Companies Have Transformed Shanghai

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Abstract

While there is general acceptance that urban governance in China is entrepreneurial in nature, little has been written about the precise ways in which Chinese cities implement entrepreneurial policies. In this article we argue that the primary agents of urban entrepreneurialism in China are urban investment and development companies (UIDCs), known in Chinese as chengtou *for short. We start by defining UIDCs as a category of state-owned enterprise, but one that is wholly owned by local (often city) governments. We note that in the literature UIDCs are generally recognized for their involvement in raising funds for projects and piling up hidden debts, but their multiple roles in urban development tend to be neglected. We introduce here four UIDCs that have been largely responsible for the transformation of Shanghai into a modern city spearheading Chinese state entrepreneurialism, and in doing so we delineate the full range of the activities of these urban business empires. We argue in particular that they represent a corporate involvement by the state in urban development—the state presenting itself in the guise of a market player, a corporate entity able to raise funds and act as if it were a private company. UIDCs are the driving force behind China's urban entrepreneurialism and are without a clear parallel elsewhere.*

Introducing urban investment and development companies

A specific set of institutional arrangements has enabled China's cities to develop and expand with unparalleled speed over the last 40 years or so. Local governments have been able to use land to generate funds with which to build infrastructure and to expropriate more land at the urban edge. In this way, the local state has been able both to expand and to raise much-needed revenue. What is more, it has used this system of land-based finance to move loans and subsequent debts out of its accounts. This apparent sleight-of-hand could not have been accomplished without the existence of a poorly understood institution, that of the urban investment and development company (UIDC), about which little has been written and the little that has been written tends to be somewhat contradictory. In this article, we shine a light on these special-purpose vehicles without which China's dramatic urban modernization could not have been realized. We focus our attention on Shanghai and on four leading UIDCs that have played pre-eminent roles in the city's metamorphosis into China's iconic emblem of contemporary modernity. The status of Shanghai as China's leading metropolis and of these specific companies as principal agents in its transformation presents an obvious starting point for a discussion on the place of UIDCs in building China's cities. Not least because of their size and institutional

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complexity, they are now beset by difficulties that are equally major, even if their precise extent is hard to ascertain given the opaque environment in which the UIDCs operate (Liu, 2019).

UIDCs are, as we discuss briefly below, a distinctively Chinese institution with few if any parallels elsewhere. They carry out an increasingly wide range of functions extending to the provision of utilities and property development. Their core function, however, is to take charge of the investment and development processes in urban and infrastructure projects. More specifically, they raise the funds for projects and take control of the process of converting undeveloped land into a site that is equipped with the appropriate infrastructure and ready for construction to begin. They go under various names in Chinese, and the confusion this induces has spilled over into English. We believe that they should be called Urban Investment and Development Companies because this appellation translates their most frequently used Chinese name (*chengshi touzi fazhan gongsi*, or *chengtou* for short) and best translates their core function. However, most mentions in both the English and Chinese-language literature—whether academic or news media—refer to only one of their roles, albeit their original and fundamental one, that of financing urban projects (Wu *et al*., 2016; Pan *et al*., 2017; Theurillat *et al*., 2016). In this guise, they tend to be known as local government financing platforms or, sometimes, vehicles (LGFPs or LGFVs)—as vehicles, that is, for local governments to sidestep regulations that restrict their ability to borrow on the market and run up debts. It is in this role that these companies garner most interest, as there is no exact information on the total debt accumulated by them; it is presumed that their debts are underwritten by local governments themselves, but that, in turn, simply exacerbates concerns about the size of local government debt (Wildau, 2019).

In this article we focus not only on UIDCs' work of funding projects but on the much wider range of functions they undertake, reflected in the term 'development' in their title. Indeed, we see UIDCs in Shanghai as being the principal agents that have driven the transformation of the city, each at the head of a host of companies that animate diverse sectors of the city's economy. We argue that the attention that has been devoted to UIDCs as 'incubators' of vast amounts of local government debt has obscured the much more extensive role that many of them play as agents of urban transformation. The four leading Shanghai UIDCs that we introduce in this article—the Jiushi Group, Shanghai Chengtou, Shanghai Lujiazui and Shenhong—have been partly, and in some cases primarily, responsible for the construction of Shanghai's metro system (Jiushi Group), road and bridge construction and the water supply (Shanghai Chengtou), the development and construction of the central part of Pudong and now extensive property ownership and management (Shanghai Lujiazui) and the financing and construction of the new Hongqiao transport and business centre in the west of the city (Shenhong). These are business conglomerates with registered capital of at least 20 billion and assets of upwards of 70 billion yuan. Despite their size and in-group diversity as well as the strength of Shanghai's economy, they have not been spared the debt problems that bedevil many other UIDCs.

Gathering information on companies in China, especially state-owned ones, can be challenging. We have undertaken this study primarily through interviews with company officials. We conducted a total of 21 interviews, some of them follow-up conversations, between July 2017 and January 2019. In 2018 and early 2019 we also undertook background interviews with Shanghai city government officials, as well as with staff at securities companies in charge of bond issuance for UIDCs, asking them for their views on UIDC debt. This follows on from a more detailed series of interviews with officials of Shenhong, undertaken in 2011 and 2012 and again in 2015 and 2016. In addition, we have used publicly available material, most of it online. The result does not pretend to be an in-depth analytical investigation; there is no exposé nor even sustained scrutiny here. Our aim in this article is a simple and straightforward one: to use the example of these four UIDC groups to tell a more informed story of urban change in Shanghai and by inference more widely in China, setting our inquiry within discussions about the nature of Chinese urban entrepreneurialism. We do this in the belief that the extant literature has failed to appreciate the significance of these organizations. This is, we believe, at least in part because, as a type of state-owned enterprise (SOE), they challenge received views of the role of the state in city building and development activities.

In the pages that follow we first set UIDCs in a wider context of debates about the nature of entrepreneurial urbanism, focusing on the role of the state and drawing briefly on debates about the state's entrepreneurial strategies in other countries. We then provide a short history of Shanghai's monumental transformation. In the central sections of the article we provide an introduction to four UIDCs that have played a prominent part in transforming Shanghai. In the last substantive section we review a broader set of issues around the role of the state and of debt and the measures that the central government has taken to overcome it. We conclude by arguing that the state has become entrepreneurial by entering the market in a corporate guise, creating state-owned companies that undertake a vast spectrum of urban development and management activities, virtually without parallel elsewhere in the world.

State entrepreneurialism and entrepreneurial strategies and institutions

By now there is a long tradition of commentary deriving from Harvey's original insight that the tenor and substance of urban governance had become entrepreneurial where it had once been managerial (1989). Opinion has coalesced around the view that local (and national) governments implement a variety of entrepreneurial strategies (Hall and Hubbard, 1996; Ward, 2003). These are built on coalitions with the private sector, often involving the contracting out of key services, and frequently hinge on speculative property-based development. They are affirmed through a business-friendly discourse (Jessop and Sum, 2000), and effected through policies that facilitate marketization, commodification, privatization and, increasingly, financialization (Brenner *et al*., 2010). They are competition-based and strongly oriented towards economic growth through the promotion of place (Leitner *et al*., 2007). Crucially, they come at the expense of measures of social distribution.

Urban entrepreneurialism or variants of this term have become a dominant trope in discussions of urban governance in contemporary China, so much so that the underlying concept seems to have been virtually taken for granted. We set out here a framework for an understanding of China's entrepreneurial cities in order to locate UIDCs in wider discussions of Chinese and beyond-Chinese urban governance. The framework comprises three strata which taken together not only present, we believe, a full picture of what entrepreneurialism means in the context of urban governance in China but also explain the importance of state corporations. The first of these is the overall context within which policies are introduced, for which we apply Wu's concept of state entrepreneurialism (Wu, 2018). Second come the strategies and policies that give shape and voice to state entrepreneurialism. The third stratum is made up of the state corporations that implement these strategies. We briefly examine each of these below, broadening out the discussion of UIDCs in an attempt to determine whether comparable organizations exist elsewhere.

In the first place (cliché though it may be—but no less accurate for that) we need to recognize that the state lies at the heart of the general framework within which entrepreneurial governance operates in China. Wu (2018), building on earlier work by Duckett (1996: 1396), conceptualizes this as state entrepreneurialism. 'State entrepreneurialism,' he writes, 'uses market instruments made available through institutional innovation to extend the state's position into the market sphere and maintain state power. Rather than being replaced by market power, state power is reinforced by its use of market instruments'. Here, it is important to understand that state entrepreneurialism is directed and guided from the centre even if it is primarily implemented at the local level—that is to say at the city and district level (Qian, 2011). Underlying China's state entrepreneurialism has been a specific approach to marketization brought about through the creation of a socio-economic infrastructure in which markets can operate (Wu, 2018). It was the central party-state that first set the scene for entrepreneurial policies at the local level by reducing the income streams of local government through its tax sharing act of 1994, forcing them to raise revenue by means of property development (He and Wu, 2009). At around the same time, housing was disentangled from state-owned enterprises, and the process of widespread housing commodification began (Zhou and Logan, 1996; Li and Huang, 2006; Wu, 2015). Perhaps the most momentous way in which the central party-state set the framework for entrepreneurial governance at the local level was through its attempts to boost economic growth by pumping liquidity into the economy—4 trillion yuan in 2009—by virtue of encouraging local governments to undertake expensive infrastructure projects (Shen and Wu, 2019). A similar approach is being deployed 10 years later in an attempt to end the slow-down in economic growth resulting from the trade war with the US (Xinhua, 2019) and the coronavirus epidemic. This is Chinese state entrepreneurialism, and while it does bear some superficial resemblance to processes that have occurred elsewhere, the centrality of the party-state sets it some distance apart.

Secondly, state entrepreneurialism manifests itself in entrepreneurial strategies and policies at the local level. These strategies and policies, hatched by prefectural, city and sometimes district governments, have led commentators unhesitatingly to refer to Chinese cities and their governance as being entrepreneurial (Chien and Wu, 2011; Qian, 2011; He *et al*., 2018). They are, above all, seen to be entrepreneurial in two specific ways: through speculative property development and competitive urban place promotion.

Entrepreneurial urban governance in China is built on the edifice of speculative property development. Entrepreneurial local governments develop through land revenues derived from property transactions. They use their monopoly on land to indulge in property-led redevelopment (He and Wu, 2007). They are well positioned to garner huge revenues by exploiting the rent gap (almost a rent chasm) between the prices which they pay to acquire and dispose of land (Hsing, 2010). Their activities are inherently speculative, based on the presumption of being able to exploit rising land and property values. In this sense, they accord well with one of Harvey's central precepts, that entrepreneurial local partnerships act in ways that are speculative rather than plan-rational.

China's urban entrepreneurialism is fundamentally competitive (Jiang *et al*., 2016). It is evinced through a discourse of competitive place promotion (Wu, 2003). It is hard-wired into urban policies and strategies as a result of the evaluation system, according to which cadres and officials are judged and promoted depending on their success in raising key economic indices for the locality in which they serve (Chien, 2013). This leads to an often short-term accentuation of beggar-my-neighbour growth policies, or alternatively to what Harvey (1989: 13) described as 'building an airstrip in the hope of luring a jetliner to earth'. China's competitive urban entrepreneurialism is, however, the subject of periodic if largely ineffective interventions by central government attempting to turn competition into cooperation.

Thirdly, entrepreneurial policies and strategies need institutions whose function is to realize them. This is our principal point of interest here: how does the state actually intervene in the economy and in the market in order to execute entrepreneurial policies and build and rebuild cities? What are the tools used by the local state to pursue entrepreneurial policies? Part of the answer lies in the growth coalitions that local governments put together to advance projects. But, generally, these are neither public–private partnerships, as both partners as often as not are state-owned, nor US-style urban growth coalitions; the companies that are harnessed to pursue development projects, while sometimes including some big private property developers, tend to be offshoots of the state, in other words, urban investment and development companies.

Looking at entrepreneurial institutions and their interventions in urban development at an international scale, it is clear that the state's involvement changes and varies reflecting differing institutional regimes and shifting ideologies. While there is not the space here to go into detail, we can sketch out three ways in which the local state nowadays becomes directly involved in entrepreneurial development activities, with involvement through financialization representing a fourth. The first is through public–private partnerships and, more particularly in the US context, urban growth coalitions, in which private companies are partners of state institutions. The second is the halfway house represented by semi-state agencies: the state forms a new entity with a private company in which it has a controlling interest. An example of this, albeit one that has been whittled down by EU regulations, would be French *sociétés d'économie mixte*, mixed-economy companies, in which the state holds a controlling interest alongside a private partner (Guelton, 2018). Another example would be British urban development corporations, which represent a form of state involvement in speculative programmes of urban development (Raco, 2005). There are some parallels here with the approach adopted by UIDCs, but UIDCs are totally state owned unlike their French and British counterparts. The third level is that of full-scale state involvement through corporatized entities. While there are many examples of city corporations providing urban services (Voorn *et al*., 2017), there are significantly fewer wholly-owned state corporations undertaking project development work (but see the discussion of autonomous city corporations in Flanders in Van Loon *et al*., 2019). Fourthly, the state has been seen by various commentators to represent a force for financialization, for example through the securitization of future income streams in the US (Weber, 2010) or through local government use of land banks in the Netherlands as a means of speculating on land value (Van Loon *et al*., 2019).

Nowhere, however, is there anything approaching the scale and importance of UIDCs, wholly state-owned but arms-length organizations involved in funding, preparing and building infrastructure and urban construction projects. And while certain similarities exist with entrepreneurial cities elsewhere, much of what passes for urban entrepreneurialism in China, culminating with the UIDCs, bears fundamentally different characteristics. It is to a closer examination of the UIDCs themselves that we turn next.

UIDCs in their state developmental setting

UIDCs are part of a much bigger state presence in the economy, one that continues to fuel both political and theoretical debate. State-owned enterprises sit on the commanding heights of the Chinese economy (Chen and Goodman, 2012; Tsai and Naughton, 2015). They are favoured by government, ensuring state control of key sectors of the economy, especially petrochemicals, utilities, banking, transport, defence industries and oil (Osburg, 2013). SOEs are multi-scalar, but at the provincial and city scale many have been sold off (Tsai and Naughton, 2015). At the same time, however, it is important to bear in mind that many companies that appear to be private are in fact not, and this is particularly the case with UIDCs operating in China's cities (Huang, 2008). As Scissors (2016) points out, SOEs are more widespread within the economy than is immediately obvious, as most are share-holding limited liability companies (*youxian gongsi*).

At first glance there may appear to be no difference between UIDCs and SOEs. Indeed, as UIDCs are a specific type of SOE, the distinction can become hazy, but it is never redundant. They are specific for at least four reasons. First, they are created by local governments as arms-length organizations; there are no UIDCs belonging to central government. In their upper echelons, they are staffed by personnel seconded from government offices whose appointment must be approved by the relevant local governmental authority. Many UIDCs (but not all) are answerable not to the State-owned Assets Supervision and Administration Commission of the State Council either at central or local level—like other SOEs—but to the local governments that formed them, and it is the local government in question that owns their assets. Second, they are tasked with government missions in specific areas, particularly in the raising of funds on the market, preparation of the ground and construction of transportation and general infrastructure including utilities, and other city-building projects such as new towns and mega urban projects (Shen and Wu, 2019). Third, some of them have grown into business empires that are more diverse than 'regular' SOEs, which are primarily but not exclusively involved in manufacturing. While many SOEs remain close in personnel and functions to the local government that founded them, others, like three of those considered here, have diversified to a point where, while largely retaining their original ownership arrangements, they have carved out a certain autonomy from their governmental progenitor. Fourth, as Hsing (2010: 48) notes, 'revenue [that they generate] from lease sales is outside the formal state budgetary system, and is thus fully retained in the local coffers'.

There is general consensus that the existence of UIDCs in their current form can be attributed to the revisions in tax sharing between central and local governments that occurred in 1994, as a result of which local governments' retained revenues no longer matched their expenses (Wu, 2010: 652; Zhang and Barnett, 2014). Local governments therefore resorted to a variety of means through which to raise funds for infrastructure projects. These are carefully enumerated by Theurillat *et al.* (2016). First, until a tightening of the regulations in 2016, Land Development Centres, as part of local government, were able to borrow directly from banks. Second, companies that Theurillat and colleagues refer to as Local Government Investment Vehicles raise funds freely by floating bonds (although a policy change in 2014 severely constrained this option). Third, in accordance with what they call the 'contractor model', companies finance and undertake developments at their own expense in return for later recompense, often in the form of property.

Wu (2010) and Wang *et al.* (2011) also provide reviews of where funding comes from. The crucial point, however, is that UIDCs were created to circumvent restrictions on local governments directly borrowing funds on the market. '[They] are often treated as city corporations under the Company Law of China, providing local governments a corporate platform to borrow from the market to invest in infrastructure' (Pan *et al.*, 2017: 899). UIDCs themselves can raise funds by borrowing from (generally state-owned) banks and through urban investment bonds and investment trust companies (Liu, 2019; Theurillat *et al.*, 2016). Once a project is operational, UIDCs also fund themselves through a process of rolling development, whereby profits from the lease of land on one project are ploughed into the next one (Jiang and Waley, 2018). UIDCs exist in a somewhat nebulous world (for example, their exact number is unknown) only partially improved through legislative reforms in 2010, with their budgets off local government's books and the size of their deficits a matter of speculation. UIDCs are thought to have about 8.2 trillion yuan in outstanding bonds (Wildau, 2019). We examine some associated problems towards the end of this article.

As will be clear by now, UIDCs have two foundational functions—investment and development—but it is only the first of these that has been extensively covered in the literature. Wang *et al.* (2011), who refer not to UIDCs but to urban investment trust companies (UITCs), concentrate mainly on how local governments finance infrastructure projects and the dangers of off-budget borrowing. Wang *et al.* (2011:

2985) use the same term in explaining that: 'Organisationally and operationally, the UITC can be regarded as a shareholder company. However, the primary shareholder is the city government'. Liu (2019: 42) provides a summary of some of the distinguishing features of what he calls City Investment Companies, receiving initial capital from the state and having top managers 'directly appointed by local governments'. Their 'major task', he writes, 'is to apply … for large sums in local bank loans', and he goes on to detail how they do this. Zhang and Barnett (2014: 5) emphasize the UIDC role in financing infrastructure projects: 'In simple terms, the local government would create a company that would then borrow from banks, trust companies, or the bond market. These companies, referred to as Local Government Financing Vehicles (LGFVs)—or, urban development investment corporations or local government financing platforms––are generally created explicitly for the purpose of financing infrastructure'.

Various commentators allude to the development role of UIDCs but focus their analysis on different elements. Thus Hsing (2010) writes of primary developers who 'cook the land' (that is, prepare it for development). Wu (2018: 1390) writes that 'the actual development tasks are carried out by development corporations, usually state-owned enterprises'. Wu *et al*. (2016: 56), in their discussion of mega events and infrastructure-led urbanization in Guangzhou, refer to the 'establishment of four state-owned LGFPs [local government financing platforms]' to handle the financing of large-scale infrastructure projects including water supply and metro construction. Some writers see an incipient financialization in play. Shen and Wu (2019) introduce a transport-oriented development project to build a new metro line in outer suburban Shanghai centred around a UIDC and partners in local (district) government; they present this as 'an instrument for financial leverage', a project that kick-started large-scale suburban property development along a metro line (p. 19). Theurillat *et al*. (2016: 25) go one step further and argue that there are moves towards the financialization of property in China through the creation of new types of financial vehicles, but these predominantly involve private companies and so are beyond our purview here.

The impression given by the literature is that these 'city corporations' are relatively mono-functional and uniform. In fact, little could be further from the truth. They perform a vast range of activities and are deeply embedded in local economies, not only at the city and prefectural levels but increasingly at the county level too (Pan *et al*., 2017). However, the first and still leading UIDCs are in Shanghai. Without them Shanghai could never have been transformed into the city it is today, dragonhead of one of China's two biggest economic regions (Wu, 2003). In particular, without UIDCs, Pudong, whose construction was the greatest single transformational act in Shanghai, could never have been built.

The role of UIDCs in Shanghai's transformation

In the section that follows, we provide a brief synopsis of the main elements in Shanghai's recent history, an appreciation of which helps contextualize the role of UIDCs. What is particularly of note is that directing each of the sectoral and place-based developments mentioned below, we see the guiding hand of at least one UIDC. Not only that, but we can read a history of the Shanghai Municipal Government's urban policy and behind it that of central government through the activities of Shanghai's UIDCs.

It was the State Council and its premier, Zhu Rongji, himself a former mayor of Shanghai, that gave the green light for the development of Pudong, on the Huangpu River, by granting it Special Economic Zone (SEZ) status in 1993 (Yeh, 1996; Wu and Barnes, 2008). In 2000 a special administration, the Pudong District Government, was established and given a high status directly under the Shanghai Municipal Government. Pudong was divided into four zones, with a UIDC established for each zone. The nearest of the four to the old city centre, Lujiazui, was designed as a destination for global higher-order service companies, especially finance companies. Spearheading Lujiazui's development and construction was one of the four UIDCs considered below, Shanghai Lujiazui. With much of Pudong completed, the Shanghai Municipal Government successfully bid to host the World Expo in 2010. In the process of preparing for the Expo, Shibo, a specially formed UIDC, spent 310 billion yuan on infrastructure, including 18 billion yuan on the construction of the pavilions. The rest of the money was used to build public conveyance systems.

In the meantime, the city government oversaw a complete transformation of the city's infrastructure primarily through the construction of elevated roads, bridges and tunnels and an extensive metro system, with much of the work undertaken by the UIDCs examined below. For example, of the nine underground lines completed in Shanghai in the decade leading up to the World Expo, Line 7 especially and Line 10 were supporting transport projects for the Expo, funded and constructed by companies in the Jiushi Group (interview with officials, 19 September 2018). When the city government decided to promote growth in the less-developed west of the city, it formed another of the case-study UIDCs, Shenhong, which completed the Hongqiao transport hub in time for the Expo opening in May 2010.

The process of conversion of Shanghai into China's leading centre for the service sector—with a vastly enlarged city centre built and decked out for international companies and the transnational and Chinese elites that work in them—was driven forward in a fairly ruthless fashion with the profit motive paramount (Li and Wu 2008; Shih 2010). In 2002 an attempt was made to bring all the developers under one roof, with the formation jointly by the city government and the Communist Party of an umbrella UIDC, the Shanghai Real Estate Group Company, which became highly profitable as a result of its inner-city property development activities; but, if anything, corruption intensified as a consequence, leading to the dismissal of Chen Liangyu, Shanghai party secretary (Hsing, 2010: 49). In this way, property-led redevelopment became the preferred route to capital accumulation (He and Wu, 2007). The demolition of old urban areas came to be seen as Shanghai Municipal Government's major task.

The leading role of UIDCs in the ongoing transformation of Shanghai seems likely to continue, even within the constraints of government regulations that are examined in the penultimate section of this article.

Four leading Shanghai UIDCs

Reflecting the size of its economy, there are a significant number of large UIDCs operating in Shanghai, 43 in total (interview, city government official, 20 August 2018). Most of them are group companies with a range of partially or wholly owned subsidiaries and affiliates and with multiple cross-shareholdings. It is not our intention here to undertake a genealogical or forensic study of these businesses, but rather to indicate their diversity and their importance as agents of urban change. We are concentrating here on four major examples that reinforce our case. We provide a brief introduction to the Jiushi Group as Shanghai's—and indeed China's—first UIDC. Shanghai Chengtou has almost as long a history as Jiushi, has been equally instrumental in transforming the city's infrastructure, and today has an equally diverse range of affiliated companies. Our two other case-study UIDCs differ in that they both started life as function-specific UIDCs, although Shanghai Lujiazui has since diversified. As its name suggests, Shanghai Lujiazui was responsible for the construction of the central section of Shanghai's (and China's) first and most iconic new district project, Pudong, while Shenhong has undertaken the development of a transport and commercial hub designed to form a counterweight to Pudong in west Shanghai. We might equally have chosen more or different companies. The Shanghai Real Estate Group, as noted above, has been deeply involved in urban renovation programmes in central and inner-city Shanghai and has made considerable profits from this type of property development. Similar activities are undertaken by Shanghai Land (Group) Co., Ltd., again suggesting that Shanghai City Government is using those of its UIDCs that are involved in property development as a means of bringing in revenue.

SOEs are officially categorized into three groups. The first and largest is the 'competitive companies' category, referring to those companies that face competition in the market—for instance, Shanghai Industrial (Group) Co., Ltd., Shanghai International Port (Group) Co., Ltd., Shenergy (Group) Co., Ltd., and Shanghai Construction Engineering Group Co., Ltd. The other two categories—general service and function-specific—refer to UIDCs (Table 1). Those labelled general service, including three of our case studies, were created with a wide-ranging brief to promote urban projects. The third, Shanghai Lujiazui, has switched to become a general service UIDC, while the fourth, Shenhong, is one of the function-specific companies. These were formed to complete specific governmental missions, for instance, the regeneration of old inner-city districts, investment in public infrastructure facilities and the construction of the new Lingang industrial zone (Wu, 2018).

Shanghai's general service UIDCs control highly varied business empires. Even function-specific UIDCs like Shanghai Lujiazui, whose origins are based around specific projects, have branched out in recent years. The leading UIDCs have spawned numerous subsidiaries, and now operate as group holding companies. While they all started out, and have remained, municipally owned yet at arms' length, Shanghai's UIDCs now operate across a diverse range of sectors (Table 2).

TABLE 1 Shanghai's largest UIDCs

UIDC Name	Category
Shanghai Chengtou Group Co., Ltd.	general service
Shanghai Shentong Metro Group Co., Ltd.	
Shanghai Jiushi (Group) Co., Ltd.	
Shanghai Lujiazui (Group) Co., Ltd.	
Shanghai International Group Co., Ltd.	function-specific
Shanghai Guosheng (Group) Co., Ltd.	
Shanghai Airport (Group) Co., Ltd.	
Shanghai Lingang Economic Development (Group) Co., Ltd.	
Shanghai Shendi (Group) Co., Ltd.	
Shanghai Real Estate (Group) Co., Ltd. (incorporating Shenhong)	
Shanghai Lianhe Investment Co., Ltd.	
Shanghai Information Investment Co., Ltd.	
Shanghai United Assets Exchange	

SOURCE: Web sites and publicly available documentation

TABLE 2 Headline figures for the four UIDC groups introduced in this article

Group Name	Registered Capital	Debt	Total Assets	Affiliated Enterprises	Total Employees
Jiushi Group	60 bn	176.2bn	468 bn	70+	70,000+
Shanghai Chengtou	50 bn	297bn	547 bn	13	16,000+
Shanghai Lujiazui	23.6 bn	103.7bn	140 bn	72	9,000+
Shenhong	50 bn	43.6bn	70 bn	10	1,000+

NOTE: Figures are the most recently available (2017 onwards) at the time of writing (2019); figures for registered capital and total assets are rounded up.
SOURCES: Web sites and publicly available documentation

In addition to their 'regular' sources of funds—bank loans, bonds and income from land leasing—UIDCs have tapped into a growing range of revenue sources. Shanghai Chengtou has received support from Shanghai Municipal Government through special project funding, land transfer fees, and debt repayment funds. For instance, in 2015 the city government allocated almost 60 billion yuan to the company. Jiushi Group has earned significant income from urban renewal projects in the city centre. Shanghai Lujiazui has raised funds from the stock market and land housing rent (interview with city government official on 22 September 2019). In summary, UIDCs have become increasingly entrepreneurial, expanding the diversity of their sources of income to include urban renewal in the city centre and real estate development throughout Shanghai.

We turn now to a brief examination of the principal activities of these four leading Shanghai UIDCs.

– Jiushi Group

The grandfather of UIDCs, as it were, is Shanghai Jiushi (Group) Co., Ltd., the product of Shanghai's reform and opening-up.[1] Using innovative financing methods including foreign capital to kick-start growth, Jiushi raised the funding for the early vital infrastructure projects that initiated the transformation of Shanghai. These included Nanpu Bridge, Metro Line 1, a major sewage project, and the Hongqiao Airport Terminal Building. It then raised funds and invested in joint technology-transfer ventures with foreign companies and tourism projects, including the construction of a number of new international hotels.

Throughout the 1990s, Jiushi remained a state-owned project investment company, focusing on Pudong and a string of unrelated investments, including the Shanghai Pudong Development Bank. The company reinforced its investments in transport and was heavily involved in the financing of Shanghai's metro system and above-ground railway network. In recent years, reflecting the current tendency to move from infrastructure investment to involvement in a more comprehensive range of sectors, it has invested in and managed major sporting events such as the F1 Chinese Grand Prix and the Shanghai Tennis Masters. It now stands at the top of a large number of subsidiary companies involved primarily in four sectors: urban transportation, sport, real estate and capital management, with urban transportation as its leading sector.

– Shanghai Chengtou

This company and its subsidiaries have been the primary constructors of infrastructure in Shanghai; it is a paradigmatic UIDC whose group companies extend into manifold sectors and activities.[2] Shanghai Chengtou Group Corporation (also known as Shanghai Municipal Investment [Group] Corporation) was established in 1992 by the Shanghai Municipal Government. It was restructured into a limited liability company in 2014; while ownership remained with the city government, management was passed on to the Shanghai City State-owned Assets Supervision and Administration Commission once its foundational functions had been completed (interview with city government official, 26 May 2018). The Shanghai Chengtou Group now includes energy and utility companies, but its core enterprises specialize in urban infrastructure investment, construction and operation management as well as property development.

The group found itself under increasing debt pressure from around 2011, leading to its restructuring in 2014. Since then, while still focusing on investment in government projects, under a new management team it has shifted towards market-oriented

1 The Shanghai Jiushi Company was founded on 30 December 1987 and restructured as the Jiushi Group in 2015. Jiushi Group officials were interviewed on a number of occasions from September to December 2018.

2 Shanghai Chengtou officials were interviewed on various occasions in July and November 2017, May and August 2018, and January and February 2019.

business in order to return to profit. The four sectors on which it has been concentrating are road and bridge construction, water provision, the environment and property. In 2016, of the 122 major construction projects programmed by the Shanghai Municipal Government, Shanghai Chengtou undertook 34, involving an investment of 22.46 billion yuan. Prominent among these activities were the supply of drinking water and sewage treatment. In 2016 Shanghai Chengtou subsidiaries supplied over a third of Shanghai's drinking water and treated much of the city's waste water. Other primary related roles include the treatment and disposal of waste including hazardous waste.

Alongside this, Shanghai Chengtou has invested in a series of infrastructural and commercial projects, not all of them in Shanghai. Since 2011, for instance, it has been involved in infrastructural projects, including the construction of ports, in Qingdao (Shandong Province), Zhangzhou (Fujian) and Taizhou (Zhejiang). Shanghai Chengtou also finances, develops and operates industrial parks—Jiangsu Qidong, an industrial park just north of Shanghai, being one of the largest. Unsurprisingly, the development of real estate projects has been a particularly profitable business for group companies. Among these are the regeneration and gentrification of various buildings on or near Shanghai's fashionable Huaihai Road. Shanghai Chengtou was one of the main funders of Shanghai Tower, the city's tallest building in Lujiazui. It is currently the building's main shareholder, with a 51% holding, alongside Shanghai Lujiazui (Group), which has 45%.

– Shanghai Lujiazui

In addition to its main business of real estate management and supporting industries, Shanghai Lujiazui (Group) Co., Ltd., established in 1990, is also involved in exhibition-hosting, finance, trade and high-tech industries (Table 3).[3] The group's core enterprise is Shanghai Lujiazui Finance and Trade Zone Development Co., Ltd., responsible for land development, and the operation and management coordination of properties in the Lujiazui Finance and Trade Zone in Pudong. Through its various group companies, it holds a total of 2.64 million square metres of property in office, commercial, hotel, exhibition and residential space. It has been listed on the Shanghai Stock Exchange since 1993 (Theurillat *et al.*, 2016: 18).

TABLE 3 Principal holding and shareholding companies belonging to Shanghai Lujiazui Group

Categories	Companies
Holding companies	Shanghai Lujiazui Finance and Trade Zone Joint Development Co., Ltd. Shanghai Pudong Lujiazui Software Industry Development Co., Ltd. Shanghai Lujiazui Development Building Co., Ltd. Tianjin Luxing Real Estate Development Co., Ltd. Shanghai Lujiazui Shangyu Real Estate Management Co., Ltd.
Shareholding enterprises	Bank of Communications Corporation China Everbright Bank Co., Ltd. China Merchants Bank Co., Ltd. Shenyin Wanguo Securities Co., Ltd. Guotai Junan Securities Co., Ltd. Shanghai Guotai Junan Investment Co., Ltd. Public Insurance Co., Ltd. Zhongwei Guomai Communication Development Co., Ltd. Shanghai Optical Communication Development Co., Ltd. Shanghai Optical Communication Technology Center Shanghai Zhangjiang Venture Capital Co., Ltd. Shanghai Fudan Science and Technology Park Co., Ltd. Tianyu (Group) Co., Ltd. Shanghai Gaotai Rare Precious Metal Co., Ltd.

SOURCE: Compiled by the authors based on interviews with officials on 28 August 2018

3 Shanghai Lujiazui officials were interviewed on a number of occasions in May 2018, August 2018 and January 2019.

As its name suggests, Shanghai Lujiazui started its existence with a central focus on the Lujiazui Finance and Trade Zone, which itself was the principal component in the development of Pudong. It has been responsible for the preparation of land and construction of infrastructure (what the Chinese call 'seven connections and one levelling') of much of the central area of Lujiazui including Century Avenue.

In 2004 Shanghai Lujiazui completed the strategic transformation of its main business from land development only to land development and project construction. As part of this expansion of its activities it initiated one of Shanghai's largest post-World Expo projects, Qiantan International Business District, a large-scale project located on the east bank of the Huangpu River, upstream from Lujiazui and the primary World Expo site. This is one of the six key development projects that form part of Shanghai's Twelfth Five-Year Plan period (2011–2015).

In a third phase of reform, in 2016 and 2017, Shanghai Lujiazui acquired Shanghai Lujiazui Financial Development Co., Ltd., in order to add financial services to its bundle of activities, giving it a twin strategy of real estate and finance.

– Shenhong

Established in July 2006, the Shanghai Shenhong Investment Development Co., Ltd., (abbreviated below to Shenhong) is a multi-investment development company working on a major Shanghai government project (Jiang and Waley, 2018).[4] Unlike the other companies discussed above, its sole purpose is to deliver on this project, one of the city's most important. The project has two components. The first to be completed, in 2010, was a national strategic project: the Hongqiao Integrated Transportation Hub, a station on the high-speed rail system standing alongside the expanded airport. Shenhong undertook the overall organization and coordination, system integration of planning and design, and comprehensive management of construction. This involved the demolition of all buildings on 26 square kilometres of land and the planning and development of the infrastructure that took their place.

Shenhong was capitalized by three Shanghai city corporations, Jiushi Group, Shanghai Airport Authority and Shanghai Municipal Land Reserve Centre. While control was with the three shareholders in theory, in practice the company was led by a direct appointee of the Shanghai Municipal Government and operated under an umbrella hub organization chaired by a deputy mayor, thereby circumventing the rule under which companies cannot be led by government officials.

The second component is a new business district that was nearing completion at the time of writing in 2019. Hongqiao Business District is designed as a new commercial centre to promote growth in the west of the city and, along with the transport hub, to link Shanghai more closely to the economy of the Yangtze River Delta area and its major commercial and industrial centres. Shenhong's involvement in this second component shifted from construction and management to funding and overall supervision, while the relocation and resettlement of local residents was managed by local government (Jiang *et al*., 2016). Since the completion of the transport hub, Shenhong has no longer been in charge of a national priority project, and faced with a lack of sufficient assets, the company had problems repaying loans and defaulted on some of its debts in 2011 (Jiang and Waley, 2018).

Of the several UIDCs jointly owned by Shenhong, we mention two here. The first, Shanghai Hongqiao Business District New Energy Investment Development Co., Ltd., is responsible for supplying energy both to the transport hub and to the business district. The second, the Shanghai Zhonghe Real Estate Development Co., Ltd., was responsible for the construction of Hongqiao Business District's central landmark project, known

4 Shenhong officials were interviewed on numerous occasions in 2011 and 2012, again in 2015 and 2016, and finally in August 2018 and January 2019.

as Hongqiao Green Valley Plaza, and is owned by a stable of Shanghai state-owned companies.

Shenhong has repeatedly struggled to generate enough income. It received an initial capital disbursement from Shanghai Municipal Government of 2 billion yuan in 2006, soon supplemented by a 3 billion yuan investment from Shenhong's three shareholders. It was then in a position to initiate the whole project. This capital had grown to 150 billion yuan by 2015. At this point, 32 land plots had been developed and leased out, bringing in significant revenue for Shenhong, but this was far from enough to see the company through its difficulties. The size and importance of the project meant that the city government would not countenance failure, but the expense necessitated an injection of new finance from the company's main stakeholders and a number of state-owned banks (interview, city government official, 22 December 2018). In the face of continued financial difficulties, Shenhong, along with Shibo Group, the UIDC responsible for the 2010 Shanghai World Expo, was merged into the Shanghai Real Estate Group in 2017 (interview, city government official, 12 February 2019). While this information was not made public, the reasons were clear. With its activities concentrated in property development, the Shanghai Real Estate Group has a strong cash flow with a good repayment capacity.

The above sketches are necessarily brief, but they point to some of the tensions with which UIDCs and their governmental taskmasters have to contend. On the one hand, UIDCs are acting as executors of governmental urban development policies; on the other, they are supposed to work to the discipline of the market. To square this circle, they have increasingly involved themselves in property-related profit-making endeavours. In the section that follows, we examine further how these tensions play themselves out.

Government, the UIDCs and Debt

As the concept of state entrepreneurialism suggests, UIDCs cannot be properly considered without understanding their interaction with the state. The state, however, is not a unitary player, and it is necessary to distinguish carefully between its different layers. At the start of Shanghai's transformation, there was central government, which wanted to use the city as dragonhead for China's economic growth. In August 1986 the State Council put its weight behind the construction of modern urban infrastructure in Shanghai and the transformation of the city's industry. It endorsed Shanghai's raising of US$3.2 billion in foreign capital to fund large-scale transformative projects.

Notwithstanding this seminal role taken by central government, the main players in the story of UIDCs have been city governments, including prefecture-level city governments. Many leading UIDCs in Shanghai (as in other major cities) have been closely bound in with city government through the placing of deputy mayors in positions of authority in organizations supervising UIDCs, as we have seen in Shenhong's case. Indeed, the main line of control of UIDCs is with city government. District governments, however, have only subsidiary roles to play, for example by sending staff on secondment to UIDCs. This is the case even in a city like Shanghai, where district governments have increasingly flexed their entrepreneurial muscle (Shen and Wu, 2019).

The whole idea behind the formation of UIDCs by city governments was to sidestep the proscription on city governments raising funds on the market. UIDCs were thus able to run up debts out of sight and off local government books, with the expectation, however, that their debts would be guaranteed by the local state (Pan *et al*., 2017). UIDCs have tended to see themselves as agents of local government and not under any obligation to repay debts, expecting local government to eventually bail them out (Wildau, 2019). For their part, local governments have been expecting central government to cover their debt. The State Council, however, has warned that it will not do so even though some local governments are on the edge of bankruptcy (interview, Shanghai bank official, 16 October

2018). It is particularly concerned about systemic risks stemming from defaults by UIDCs. These concerns reflect the fact that total local government debt reached 18.4 trillion yuan in December 2018, while it is estimated that off-the-books local government debt stood at around 40 trillion yen (Caixin, 2019). Local governments have therefore become ever more reliant on revenue from land leasing, but due to the slow-down in the property market since 2016, these revenue streams have been declining.

The central authorities have introduced a variety of measures designed to bring local government debt down to acceptable levels. In order to curb the role of UIDCs as proxy borrowers for local government, the 2014 Budget Law forbade UIDCs from borrowing on the market, and in effect told them they must reform or close. The same law allowed city governments to borrow on the market, but only with permission from the State Council, granted exclusively to provincial governments, who would then pass permission down to the city level. Local governments were urged to transform UIDCs into public–private partnerships (PPPs), and in some places a conversion of sorts appears to have happened (interview, city government official, 10 November 2018). But in a classic case of the cat-and-mouse games that characterize Chinese politics, in many instances the private partner has actually been an SOE, so creating a public–public partnership (Ministry of Finance, 2017).

In the light of widespread failure to comply, central government has taken further measures. Since 2017 it has restricted the ability of local governments and UIDCs to borrow money from banks using land, buildings and projects as collateral, measures that were reinforced in 2018 (interview, city government official, 8 December 2018).

Most UIDCs have reacted by attempting to diversify their income sources. As we have seen, many larger UIDCs already had a varied portfolio of activities and investments. Several Shanghai UIDCs such as Shanghai Lujiazui have expanded the range and extent of their involvement in property, where despite the slowdown there has still been plenty of money to be made. Industrial parks have been another favoured investment. Some UIDCs have taken to investing outside their local territories. For instance, Shanghai Chengtou has undertaken property projects and manages industrial parks in Qingdao.

Of the four Shanghai UIDCs that we have been considering, Shenhong has been the most seriously affected by difficulties related to the macro-economic climate. The fact that it has a single-project role has made it more vulnerable and resulted in its merger with (in effect, a takeover by) the much stronger Shanghai Real Estate Group. Merging and restructuring UIDCs has become a favoured policy prescription, with UIDCs in strong financial condition absorbing highly leveraged UIDCs.

Concluding thoughts on UIDCs as embodiments of state entrepreneurialism

In this article, we have shown how UIDCs have done much more than fund Shanghai's transformation. They have been responsible, wholly or in part, for building its metro system and for managing its principal international sporting events (Jiushi Group), for building and managing water and sewage facilities and for the construction and ownership of Shanghai Tower (Shanghai Chengtou), for the funding and construction of Pudong's central financial zone and property development more widely in Pudong (Shanghai Lujiazui), and for the funding and construction of the most important CBD in the west of Shanghai (Shenhong). But even this is only a partial list, and one that fails to take into account the huge variety of tasks undertaken by their subsidiary companies. UIDCs are therefore inherently and increasingly entrepreneurial. They are inherently entrepreneurial in that they are founded by local governments as shareholding business companies to undertake the classic entrepreneurial tasks of raising funds on the market and developing new projects, and they are increasingly entrepreneurial because of their vastly more heterogeneous contemporary roles in particular as property developers, as in the case of the Shanghai Real Estate Group.

We have concentrated here on the multiple activities of UIDCs, but it is important to note that SOEs—whether UIDCs or not—encroach into many aspects of urban development processes. State banks provide loans for urban projects, state-owned enterprises (UIDCs) as well as private property developers undertake downstream development activities, and state companies own and manage tourist districts often containing large numbers of residents. The state, in other words, incorporates itself in order to organize China's transformational project of urbanization; indeed, it remains deeply imbricated in most aspects of territorial management. While we do not believe that Chinese cities should be considered in isolation, we have struggled to place this vision of state entrepreneurialism and the entrepreneurial cities and UIDCs that animate it within a broader international framework. Indeed, we believe that while some similarities exist with development corporations elsewhere, the points of variance are multiple and significant.

In this article, we have argued that, although UIDCs fall within the overall category of SOEs, they need to be considered differently from others because they are owned by the local state, in this case Shanghai Municipal Government, and with the one exception of Shanghai Chengtou, they are not overseen by the State-owned Assets Supervision and Administration Commission. There is very little transparency in their management and finances, and local governments are widely expected to cover their obligations. They are therefore at the centre of concerns around the size of local government's shadow debt.

UIDCs are arms-length corporate embodiments of the state in the market, locomotives of the urban growth that propels the Chinese economy (Hsing, 2010). They are therefore the principal instruments on the urban scale of the state entrepreneurialism of which Wu has frequently written (2003; 2018). Clarifying and underscoring their role in urban development, as we have done here, makes up for the reticence shown in much of the literature to identify specifically the principal instruments through which entrepreneurial urban policies are implemented.

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